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INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P 5153 PC00	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/IS 03/00012	International filing date (day/month/year) 14.03.2003	Priority date (day/month/year) 14.03.2002
International Patent Classification (IPC) or both national classification and IPC G07C5/08		
Applicant ND A ISLANDI EHF. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 7 sheets, including this cover sheet.
- ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
- These annexes consist of a total of 17 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 08.10.2003	Date of completion of this report 24.06.2004
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Kemény, M Telephone No. +49 89 2399-7941 

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/IS 03/00012**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1, 5, 7, 13-15, 18	as published
2, 4, 6, 8, 10-12, 16, 17	filed with telefax on 21.05.2004
3, 9	filed with telefax on 04.06.2004

Claims, Numbers

1-36	filed with telefax on 04.06.2004
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Drawings, Sheets

1/4-4/4	as published
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2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application,
☒ claims Nos. 22,23

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):
☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 22,23 are so unclear that no meaningful opinion could be formed (*specify*):

see separate sheet

- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
☐ no international search report has been established for the said claims Nos.

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

- ☐ the written form has not been furnished or does not comply with the Standard.
☐ the computer readable form has not been furnished or does not comply with the Standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-21,24-36
	No: Claims	
Inventive step (IS)	Yes: Claims	1-21,24-36
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-21,24-36
	No: Claims	

2. Citations and explanations

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see separate sheet

**INTERNATIONAL PRELIMINARY
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International application No. PCT/IS 03/00012

1 Prior Art

Reference is made to the following documents:

- D1: US 2002/029109 A1 (TSOI LEO S C ET AL) 7 March 2002 (2002-03-07)
- D2: US 2001/047244 A1 (HARRISON CHRISTOPHER G ET AL) 29 November 2001 (2001-11-29)
- D3: EP-A-0 545 636 (NAVSYS CORP) 9 June 1993 (1993-06-09)
- D4: US-A-6 005 513 (HARDESTY W MARK) 21 December 1999 (1999-12-21)
- D5: US-A-6 115 655 (EVANS PAUL H ET AL) 5 September 2000 (2000-09-05)
- D6: EP-A-1 158 273 (DATA TEC CO LTD) 28 November 2001 (2001-11-28)
- D7: US-A-5 787 384 (JOHNSON GREGORY BENGT) 28 July 1998 (1998-07-28)
- D8: US-A-6 064 970 (HEINEN JOHN PATRICK ET AL) 16 May 2000 (2000-05-16)
- D9: US-A-5 736 962 (TENDLER ROBERT K) 7 April 1998 (1998-04-07)
- D10: US-A-4 402 049 (GRAY JACK) 30 August 1983 (1983-08-30)
- D11: WO 98/43192 A (SCIENTIFIC ATLANTA) 1 October 1998 (1998-10-01)

2 Summary

- 2.1 No opinion could be established on claim 22 and 23, as this claim is massively unclear. Further, claims 22, 26, 30-31 and claim 34 are also not clear, thus not meeting the requirements of Article 6 PCT.
- 2.2 Claims 1-21 and 24-36 are novel and inventive within the meaning of Article 33(2)(3) PCT, and therefore meet the requirements of Article 33(1) PCT.

Re Item III

Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

3 Claims 22 and 23

Claim 22, claiming the moving object to be an airplane, seems to be depending on other claims, but it is not stated in the documents on file on which claims this claim is depending. The same reasoning will be applied to claim 23, which is dependent on claim 22. Consequently, an opinion cannot be established on these two claims.

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

4 Novelty and Inventive Step

4.1 Independent Claim 26

The document D1 discloses (the references in parentheses applying to this document):

- 1) a registration system for determining a track record of a moving object by determining at least one characteristic property of the object ("(...) a vehicle operation and position recording system (...)", [0002]), the system comprising
- 2) means for receiving at least three GPS coordinates, each of the coordinates comprising the current position of the moving object and the current time, at which the moving object is at the current position ("... utilizing a global positioning system", [0002]);
- 3) means for storing said coordinates data in a coordinates data storage means ("(...) records positional and operational data of the vehicle. The recording device includes a GPS receiver, a control unit and a storage device", [0005]);
- 4) utilizing the at least three GPS coordinates data for determining said at least one characteristic properties of the moving object ("(...) provides in-vehicle recording device with such status and operational information as vehicle velocity, distance travelled, amount of fuel remaining and engine temperature.", [0018]);
- 5) and thereby obtaining a track record for the moving object (implicit);

- 6) wherein said track record comprises information related to:
- direction of movement
 - velocity
- ("Based on the time difference between positions, a velocity of the base vehicle can also be computed.",[0022])
- 7) and wherein said track data are utilized to create user information ("The stored data of in-vehicle recording device 100 can be used to determine whether the vehicle has been operated in excess of legal speed limit or whether the vehicle has been driven outside a permissible area", [0022]).

The difference between claim 26 and D1 is that the track record further comprises information related to perpendicular acceleration. Therefore, the claim must be considered novel within the meaning of Article 33(2) PCT.

From this difference, the following technical problem to be solved by the person skilled in the art can be formulated as:

Having registration system for determining a track record of a moving object, how to determine in which manner the object is steered and how accurately it maintains it's route.

Neither D1 nor the other documents cited in the international search report reveals the perpendicular (or lateral) acceleration as being an important physical factor, nor how this acceleration is being obtained.

Therefore, claim 26 involves an inventive step within the meaning of Article 33(3) PCT. The requirements of Article 33(1) PCT are met.

4.2 Independent Claim 1

The same reasoning applies, mutatis mutandis, to the subject-matter of the corresponding independent claim 1, which therefore is also considered new and inventive.